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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,472	02/17/2004	Adrianus Johannes Mattheus Bernsten	NL000070A	1403

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EXAMINER

YAMNITZKY, MARIE ROSE

ART UNIT	PAPER NUMBER
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1774

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/780,472	Applicant(s) MATTHEUS BERNTSEN ET AL.	
	Examiner Marie R. Yamnitzky	Art Unit 1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2007 and 30 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-24 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-16 is/are allowed.
- 6) ☒ Claim(s) 17-20,23 and 24 is/are rejected.
- 7) ☒ Claim(s) 21 and 22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1. This Office action is in response to applicant's communications filed March 19, 2007 and April 30, 2007. The substitute specification filed March 19, 2007 has been entered. The amendment filed April 30, 2007, which amends claims 13 and 17 and adds claims 21-24, has been entered.

Claims 13-24 are pending.

2. The issues raised in the Office action mailed October 18, 2006 with respect to applicant's claim for benefit of prior-filed applications, and with respect to the declaration, are rendered moot by claim amendment. (The claims no longer recite the subject matter that was not considered by the examiner to be supported by prior Application No. 09/790,201.)

The objection to the disclosure as set forth in the October 18th action is partly rendered moot by claim amendment and otherwise overcome by the substitute specification filed March 19, 2007.

The rejections of claims 13-16 under 35 U.S.C. 112, 1st and 2nd paragraphs, as set forth in the October 18th action are overcome by claim amendment.

3. The examiner has reconsidered the rejection of claims 13-20 under 35 U.S.C. 103(a) as unpatentable over WO 99/21936 in light of the claim amendments, applicant's arguments filed March 19, 2007, the teachings of WO 99/21936 as a whole, and the data presented in the present specification, and withdraws the rejection.

While aryl-substituted poly-p-arylenevinylene polymers consisting of, or comprising, a repeating unit of formula (C1) as defined in present claims 13 and 17 (and new claims 23 and 24) are within the scope of WO 99/21936, the prior art does not provide a specific example of such a polymer, there are no teachings in the prior art as to polymer structure modifications that would provide service life capabilities recited in the present independent claims, and data of record demonstrate unexpected results compared to other polymers within the scope of the prior art.

WO 99/21936 discloses polymers that meet present $-OC_m$ and $-OC_n$, but not $(R)_p$. The prior art does not disclose any polymers that meet $(R)_p$, though such polymers are within the scope of a prior art polymer comprising or consisting of a repeating unit of formula (C1) and/or (C2) as shown on page 4. Comparative Examples 1 and 2 as set forth in the specification utilize polymers that are within the scope of WO 99/21936, though not explicitly disclosed in the prior art. The polymer of Comparative Example 1 does not meet present $(R)_p$, $-OC_m$ or $-OC_n$. The polymer of Comparative Example 2 meets present $(R)_p$, but not present $-OC_m$ and $-OC_n$. While Comparative Example 1 does not test service life under the same conditions as set forth in claims 13, 17, 23 and 24, this comparative example demonstrates that while brightness may be increased by increasing voltage, service life decreases with increasing voltage. Comparative Example 2 tests service life under the same conditions as set forth in claims 13, 17, 23 and 24, and the device has a service life of only 10 hours. There is no suggestion in the prior art that modifications to some polymers defined in prior art Table 1 to meet present $(R)_p$ would provide polymers capable of providing a much greater service life under the conditions set forth in claims 13, 17, 23 and 24, compared to other polymers within the scope of the prior art.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 17-20, 23 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 99/24526.

(See US 2002/0064680 A1 as representing a translation of the international application published as WO 99/24526. Page numbers below refer to page numbers in WO '526.)

See the whole document. In particular, see the abstract, page 21 (monomers 3, 9 and 16), p. 58, l. 1-20, p. 59, l. 12-p.60, l. 19, p. 62, l. 1-22, p. 76 and p. 80.

Each of prior art polymers P6, P8, P9 and P12 is an aryl-substituted poly-p-arylenevinylene comprising a repeating unit of formula (C1) as defined in present claims 17, 23 and 24 and further defined in claims 18-20.

These polymers are disclosed for use in an organic electroluminescent device.

The service life limitations set forth in claims 17, 23 and 24 are expected by the examiner to be inherent in at least the prior art devices made with polymer P6, P8 or P9 given the structural similarity of the prior art polymers to aryl-substituted poly-p-arylenevinylene polymers disclosed in the present specification that meet the claim limitations. Prior art polymer P6 consists of the same repeating units as the polymer of formula (C3) on page 16 of the present specification. Prior art polymer P8 consists of the same repeating units as the polymer of

formula (C8) on page 15 of the present specification. Prior art polymer P9 is similar to the polymer of present formula (C8), differing only in that polymer P9 has $-F$ instead of $-OC_1$ as the substituent corresponding to present "R". It is reasonable to expect that a device made with prior art polymer P6, P8 or P9 will meet the limitations of claims 17-20 and 23 since a device made with a polymer of present formula (C3) or (C8) meets the limitations. Likewise, it is reasonable to expect that prior art polymers P6, P8 and P9 are effective to enhance the service life of an EL device as recited with respect to the polymer of present claim 24 since the polymer of present formula (C3) or (C8) is effective to enhance the service life of an EL device as recited with respect to the polymer of claim 24.

Further with respect to the requirement in present claim 23 that the device also include a voltage source capable of providing a voltage to obtain an initial brightness of 200 Cd/m^2 , the examiner notes that a footnote for Table 2 indicates that the values set forth in the last column of Table 2 are at a luminosity of 1000 Cd/m^2 . Accordingly, it is reasonable to expect that the devices include a voltage source capable of providing a voltage to obtain an initial brightness of 200 Cd/m^2 .

6. Applicant's arguments filed March 19, 2007 have been fully considered but they are not persuasive with respect to the patentability of claims 17-20, 23 and 24 over WO 99/24526.

Prior art polymers P6, P8, P9 and P12 meet all the compositional limitations set forth in the rejected claims with respect to the polymer comprising a repeating unit of formula (C1). Further, prior art polymers P6 and P8 consist of the same repeating units in the same relative

ratio as the polymers of present formulae (C3) and (C8), respectively, and prior art polymer P9 consists of repeating units similar to those of present formula (C8) in the same relative ratio. There is no evidence of record to demonstrate that any polymers consisting of these repeating units in the same relative ratio are not capable of providing a device having the service life limitations recited in the rejected claims.

With respect to the prior art disclosure of polymers outside the scope of the rejected claims, the examiner notes that the prior art disclosure need not be limited to species within the scope of the claimed genus in order to anticipate the genus. The disclosure of a species within the scope of a genus anticipates the genus. *In re Slayter*, 276 F.2d 408, 411, 125 USPQ 345, 347 (CCPA 1960); *In re Gosteli*, 872 F.2d 1008, 10 USPQ2d 1614 (Fed. Cir. 1989).

7. Claims 13-16 are allowed. The prior art does not disclose or suggest a polymer consisting of a repeating unit of formula (C1) as defined in claim 13 wherein the polymers are capable of providing an electroluminescent device meeting the service life limitations recited in claim 13, with claims 14-16 dependent therefrom.

8. Claims 21 and 22 are objected to because of the following informalities:

The formulae in claim 21, with claim 22 dependent therefrom, contain minor errors. In each formula, "5" in "0.35" appears inside the first bracket for an adjacent repeating unit. In formula (C6), the second bracket for the third repeating unit is missing, and the second bracket for the second repeating unit is shown as a bracket on top of a bracket.

Art Unit: 1774

Appropriate correction is required. Claims 21 and 22 will be allowable upon correction of the errors in formulae (C5) and (C6) in claim 21. The prior art does not disclose or suggest polymers having formula (C5) or (C6) wherein the polymers are capable of providing an electroluminescent device meeting the service life limitations recited in claims 21 and 22.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication should be directed to Marie R. Yamnitzky at telephone number (571) 272-1531. The examiner works a flexible schedule but can generally be reached at this number from 7:00 a.m. to 3:30 p.m. Monday-Friday.

The current fax number for all official faxes is (571) 273-8300. (Unofficial faxes to be sent directly to examiner Yamnitzky can be sent to (571) 273-1531.)

MRY
July 07, 2007



MARIE YAMNITZKY
PRIMARY EXAMINER

1774